Safety Smart Book

NCARNG SOH OFFICE CONTACTS

State Safety Manager	COL John Mullinax	984-664-6253	919-612-9732	john.d.mullinax.mil@mail.mil
Occupational Health Nurse	MAJ Christina Henderson	984-664-6206	919-612-9734	christina.j.henderson4.mil@mail.mil
State Safety Specialist	1SG Gregory Greene	984-664-6420	919-271-3379	gregory.m.greene8.mil@mail.mil
State Safety Specialist	MSG Hugh Wilson	984-664-6153	919-802-4837	hugh.a.wilson.mil@mail.mil
Industrial Hygiene Technician	SFC Wayne Benner	984-664-6388	919-271-8437	wayne.b.benner.mil@mail.mil
North Carolina Joint Operations Center (JOC)		984-664-6119	ng.nc.ncarng.mbx.joc-nc-mailbox@mail.mil	

UNIT SAFETY CONTACTS

Facility ADSO				
Facility Commander/Supervisor				
Unit ADSO				
Unit Commander				
BN ADSO				
BN Commander				
MSC/BDE ADSO				

SAFETY LINKS

NCARNG SOH Internet Page - https://states.gkoportal.ng.mil/states/NC/jstaff/j3/aso/Pages/Safety-and-Occupational-Health.aspx
U.S.Army Combat Readiness/Safety Center - https://safety.army.mil/
Occupational Safety & Health Administration - https://www.osha.gov/

Required Safety Training

Required safety courses for Soldiers, technicians, and civilian employees of the NCARNG.

ALL training completed will be recorded and tracked in DTMS-SOH.

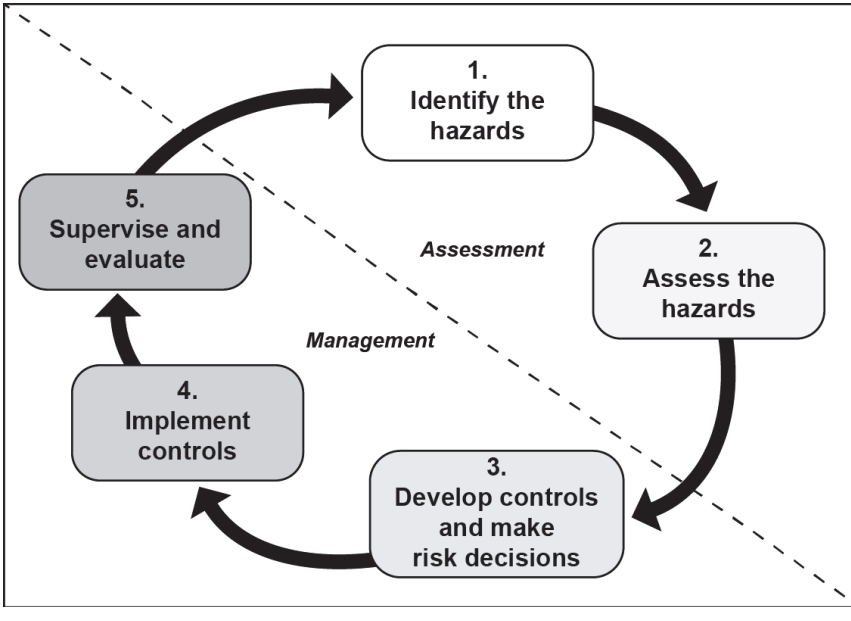
All Soldiers	Composite Risk Management Basic Course (CRM)[1] Army Accident Avoidance Course (AAC) – (every 4 years)[1]
Motorcycle Operators	MSF Approved Basic Rider Course (BRC)[2] MSF Approved BRC2 or ERC [2]
Officers and Warrant Officers (before assuming command)	Commander's Safety Course [1]
Battalion Commanders (within 90 days of assuming command)	Army Readiness and Assessment Program (ARAP)[1]
Additional Duty Safety Officers (ADSO)	Additional Duty Safety Course [1] RCAS SOH Training Course [2] OSHA for 1st Line Supervisor's Course [2] Ground Safety Officer Course (GSOC) – (BN Level and Above)[3]
Military Technicians per Their Position	Supervisor's Safety Course [1] Manager's Safety Course [1] Employee's Safety Course [1] Composite Risk Management Civilian Basic Course [1]

In addition to the above courses, all Soldiers will receive a briefing, or formal training as appropriate, on the following topics annually. This training will be recorded and tracked in DTMS-SOH as well.

- Composite Risk Management
- Severe Weather
- Emergency Evacuation Drill
- Fire Extinguishers
- POV/POM Safety
- Weapons Safety (before AWQ)

Notes:
[1] Online Course – register through link on State Safety Office website
[2]Resident Course – apply through State Safety Office
[3] Resident Course – apply trough ATRRS

CRM Process


1.
Identify the hazards
2.
Assess the hazards
3.
Develop controls and make risk decisions
4.
Implement controls
5.
Supervise and evaluate
Assessment
Management

DO NOT ACCEPT ANY UNNECESSARY RISK!
ENSURE RISK DECISIONS ARE MADE AT THE APPROPRIATE LEVEL.

HAZARD SEVERITY

The expected consequences of an event in terms of degree of injury, property damage or other mission-impairing factors.

CATASTROPHIC	Death or permanent total disability, system loss, major damage, significant property damage or mission failure.
CRITICAL	Permanent partial disability, temporary total disability in excess of 3 months, major system damage, significant property damage or significant mission degradation.
MARGINAL	Minor injury, lost workday incident, minor system damage, minor property damage or some mission degradation.
NEGLIGIBLE	First aid or minor medical treatment, minor system impairment or little/no impact on mission accomplishment.

HAZARD PROBABILITY	**COMPOSITE RISK MANAGEMENT (CRM) AT A GLANCE**
Probability is the likelihood an event will occur. **FREQUENT:** Occurs often or continuously experienced. **LIKELY:** Occurs several times. **OCCASIONAL:** Occurs sporadically. **SELDOM:** Unlikely, but could occur at some time. **UNLIKELY:** Can assume it will not occur.	CRM is the Army's primary decision making process for identifying hazards and controlling risks across the full spectrum of Army operations. Use the following five steps (see FM5-19 Chapter 1) 1. **Identify the Hazards:** Hazards have the potential to cause injury, illness, or death of personnel; damage to or loss of equipment or property; or mission degradation. METT-TC helps identify 2. **Asses the Hazard to determine Risk:** Assess the probability of the event/occurrence. Estimate the expected result/severity of the event/occurrence. Determine the specified level of risk for a given probability/severity using the risk assessment matrix. 3. **Develop controls and Make Risk Decisions:** After assessing each hazard develop one or more controls that either eliminate the hazard or reduce the risk of the incident. Consider the reason for the hazard, not just the hazard itself. 4. **Implement Controls:** Ensure that controls are integrated into SOP's , orders, briefings, and staff estimates. Ensure controls are converted into clear and simple execution orders. 5. **Supervise and Evaluate:** This must occur throughout all phases of any operation or activity. It indentifies weaknesses and helps adjustment controls based on events.

Risk Assessment Matrix

		Probability *(expected frequency)*				
		Frequent: Continuous, regular, or inevitable occurrences	**Likely:** Several or numerous occurrences	**Occasional:** Sporadic or intermittent occurrences	**Seldom:** Infrequent occurrences	**Unlikely:** Possible occurrences but improbable
Severity *(expected consequence)*		**A**	**B**	**C**	**D**	**E**
Catastrophic: *Mission failure, unit readiness eliminated; death, unacceptable loss or damage*	**I**	**EH**	**EH**	**H**	**H**	**M**
Critical: *Significantly degraded unit readiness or mission capability; severe injury, illness, loss or damage*	**II**	**EH**	**H**	**H**	**M**	**L**
Moderate: *Somewhat degraded unit readiness or mission capability; minor injury, illness, loss, or damage*	**III**	**H**	**M**	**M**	**L**	**L**
Negligible: *Little or no impact to unit readiness or mission apability; minimal injury, loss, or damage*	**IV**	**M**	**L**	**L**	**L**	**L**

Legend: **EH** - Extremely High Risk **H** - High Risk **M** - Medium Risk **L** - Low Risk

DELIBERATE RISK ASSESSMENT WORKSHEET

1. MISSION/TASK DESCRIPTION	2. DATE *(DD/MM/YYYY)*

3. PREPARED BY

a. Name (Last, First Middle Initial)	b. Rank/Grade	c. Duty Title/Position

d. Unit	e. Work Email	f. Telephone *(DSN/Commercial (Include Area Code))*

g. UIC/CIN *(as required)*	h. Training Support/Lesson Plan or OPORD *(as required)*	i. Signature of Preparer
		SIGN HERE

Five steps of Risk Management: (1) Identify the hazards (2) Assess the hazards (3) Develop controls & make decisions (4) Implement controls (5) Supervise and evaluate *(Step numbers not equal to numbered items on form)*

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -					How: Who:	

10. OVERALL RESIDUAL RISK LEVEL *(All controls implemented)*:

☐ EXTREMELY HIGH ☐ HIGH ☐ MEDIUM ☐ LOW

11. OVERALL SUPERVISION PLAN AND RECOMMENDED COURSE OF ACTION

12. APPROVAL OR DISAPPROVAL OF MISSION OR TASK ☐ Approve ☐ Disapprove

a. Name (Last, First, Middle Initial)	b. Rank/Grade	c. Duty Title/Position	d. Signature of Approval Authority
			SIGN HERE

e. Additional Guidance:

Risk Assessment Matrix		Probability *(expected frequency)*				
		Frequent: Continuous, regular, or inevitable occurrences	**Likely:** Several or numerous occurrences	**Occasional:** Sporadic or intermittent occurrences	**Seldom:** Infrequent occurrences	**Unlikely:** Possible occurrences but improbable
Severity *(expected consequence)*		A	B	C	D	E
Catastrophic: *Mission failure, unit readiness eliminated; death, unacceptable loss or damage*	I	EH	EH	H	H	M
Critical: *Significantly degraded unit readiness or mission capability; severe injury, illness, loss or damage*	II	EH	H	H	M	L
Moderate: *Somewhat degraded unit readiness or mission capability; minor injury, illness, loss, or damage*	III	H	M	M	L	L
Negligible: *Little or no impact to unit readiness or mission capability; minimal injury, loss, or damage*	IV	M	L	L	L	L

Legend: **EH** - Extremely High Risk **H** - High Risk **M** - Medium Risk **L** - Low Risk

13. RISK ASSESSMENT REVIEW *(Required when assessment applies to ongoing operations or activities)*

a. Date	b. Last Name	c. Rank/Grade	d. Duty Title/Position	e. Signature of Reviewer

14. FEEDBACK AND LESSONS LEARNED

15. ADDITIONAL COMMENTS OR REMARKS

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Instructions for Completing DD Form 2977, "Deliberate Risk Assessment Worksheet"

1. Mission/Task Description: Briefly describe the overall Mission or Task for which the deliberate risk assessment is being conducted.

2. Date *(DD/MM/YYY)*: Self Explanatory.

3. Prepared By: Information provided by the individual conducting the deliberate risk assessment for the operation or training. **Legend: UIC** = Unit Identification Code; **CIN** = Course ID Number; **OPORD** = operation order; **DSN** = defense switched network; **COMM** = commercial

4. Sub-task/Sub-Step of Mission/Task: Briefly describe all subtasks or substeps that warrant risk management.

5. Hazard: Specify hazards related to the subtask in block 4.

6. Initial Risk Level: Determine probability and severity. Using the risk assessment matrix (page 3), determine level of risk for each hazard specified. probability, severity and associated Risk Level; enter level into column.

7. Control: Enter risk mitigation resources/ controls identified to abate or reduce risk relevant to the hazard identified in block 5.

8. How to Implement / Who Will Implement: Briefly describe the means of employment for each control (i.e., OPORD, briefing, rehearsal) and the name of the individual unit or office that has primary responsibility for control implementation.

9. Residual Risk Level: After controls are implemented, determine resulting probability, severity, and residual risk level.

10. Overall Risk After Controls are Implemented: Assign an overall residual risk level. This is equal to or greater than the highest residual risk level (from block 9).

11. Supervision Plan and Recommended Course of Action: Completed by preparer. Identify specific tasks and levels of responsibility for supervisory personnel and provide the decision authority with a recommend course of action for approval or disapproval based upon the overall risk assessment.

12. Approval/Disapproval of Mission/Task: Risk approval authority approves or disapproves the mission or task based on the overall risk assessment, including controls, residual risk level, and supervision plan.

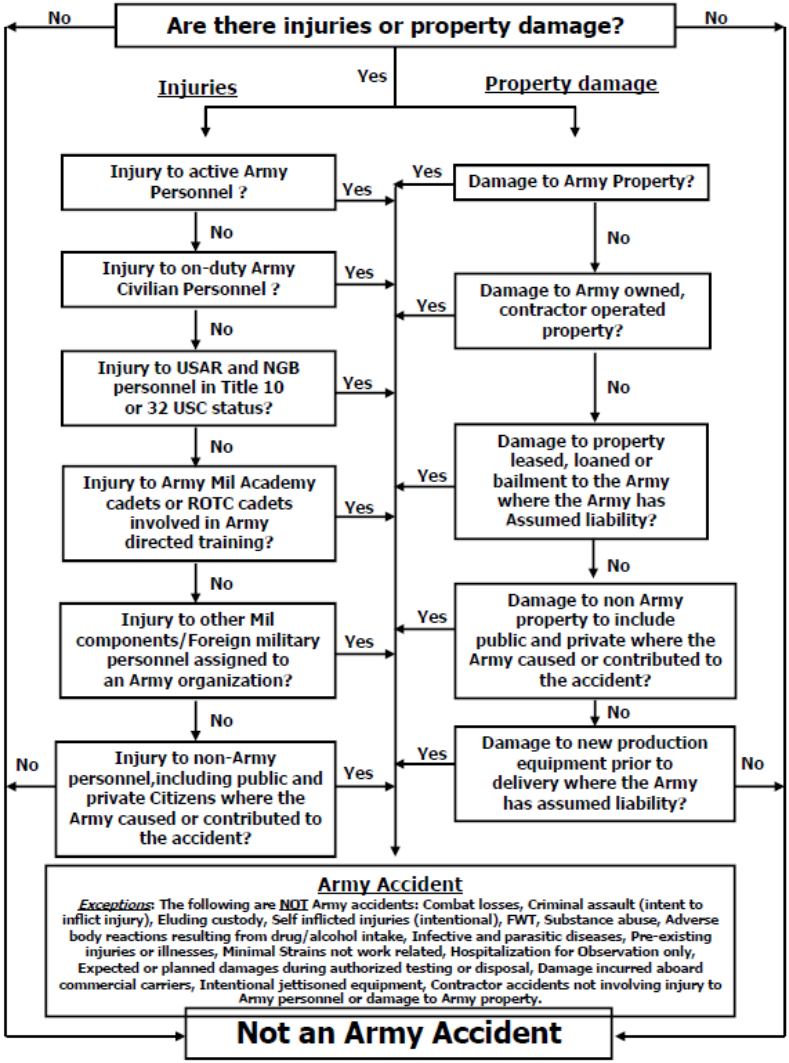
13. Risk Assessment Review: Should be conducted on a regular basis. Reviewers should have sufficient oversight of the mission or activity and controls to provide valid input on changes or adjustments needed. If the residual risk rises above the level already approved, operations should cease until the appropriate approval authority is contacted and approves continued operations.

14. Feedback and Lessons Learned: Provide specific input on the effectiveness of risk controls and their contribution to mission success or failure. Include recommendations for new or revised controls, practicable solutions, or alternate actions. Submit and brief valid lessons learned as necessary to persons affected.

15. Additional Comments or Remarks: Preparer or approval authority provides any additional comments, remarks, or information to support the integration of risk management.

Additional Guidance: Blocks 4-9 may be reproduced as necessary for processing of all subtasks/ substeps of the mission/task. The addition and subtraction buttons are designed to enable users to accomplish this task.

Is it an Army Accident?



ARMY ACCIDENT CLASSIFICATION CHART

Accident Class	Definition
A	An Army accident in which the resulting total cost of property damage is $2,000,000 or more; an Army aircraft is destroyed, missing, or abandoned; or an injury and/or occupational illness results in a fatality or permanent total disability. Note that unmanned aircraft systems (UAS) accidents are classified based on the cost to repair or replace the UAS. A destroyed, missing, or abandoned UAS will not constitute a Class A accident unless replacement or repair cost exceeds $2,000,000 or more.
B	An Army accident in which the resulting total cost of property damage is $500,000 or more, but less than $2,000,000; an injury and/or occupational illness results in permanent partial disability, or when 3 or more personnel are hospitalized as inpatients as the result of a single occurrence.
C	An Army accident in which the resulting total cost of property damage is $50,000 or more, but less than $500,000; a nonfatal injury or occupational illness that causes 1 or more days away from work or training beyond the day or shift on which it occurred or disability at any time (that does not meet the definition of Class A or B and is a lost time case).
D	An Army accident in which the resulting in total cost of property damage is $20,000 or more, but less than $50,000; a nonfatal injury or illness resulting in restricted work, transfer to another job, medical treatment greater than first aid, needle stick injuries and cuts from sharps that are contaminated from another person's blood or other potentially infectious material, medical removal under medical surveillance requirements of an OSHA standard, occupational hearing loss, or a work–related tuberculosis case.
E ground accident	An Army ground accident in which the resulting total cost of property damage is $5,000 or more but less than $20,000.
E aviation accident	An Army aviation accident in which the resulting total cost of property damage is $5,000 or more but less than $20,000.
F aviation incident	Recordable incidents are confined to aircraft turbine engine damage because of unavoidable internal or external foreign object damage, where that is the only damage (does not include installed aircraft auxiliary power units). These incidents will be reported using DA Form 2397–AB–R (Abbreviated Aviation Accident Report); check "F" in the "Accident Classification" block. Note that when appropriate, it is the unit commander's responsibility to ensure that an SF Form 368 (Product Quality Deficiency Report) or equipment improvement report (EIR) for Category II or message for Category I is completed and forwarded to the appropriate agency per AR 750–6, DA Pam 750–8, or DA Pam 738–751. The USACRC and the appropriate Army Headquarters will be information addressees on all Category I EIRs and product quality deficiency reports.
NOTES	When appropriate, it is the unit commander's responsibility to ensure that an SF Form 368 (Product Quality Deficiency Report) or equipment improvement report (EIR) for Category II, or message for Category I is completed and forwarded to the appropriate agency per AR 750-6, DA Pam 750-8, or DA Pam 738-751. The USACRC and the appropriate Army Headquarters will be information addressees on all Category I EIRs and product quality deficiency reports.

TAG Command Critical Information Requirements (CCIR)

1. Death or Serious Injury of a North Carolina National Guardsman.

2. Any accident or incident involving a North Carolina National Guard Soldier or Airmen resulting in the death or injury of a civilian.

3. Any accident or incident resulting in major damage or loss of North Carolina National Guard equipment or property (Greater than $2500).

4. Any threat, suspected act of terrorism or sabotage against a North Carolina National Guard or North Carolina military facility.

5. Any notification of alert or mobilization of North Carolina National Guard units outside of ARFORGEN / AEF cycle.

6. Any curtailment or premature demobilization of North Carolina National Guard units deployed in support of Overseas Contingency Operations.

7. Any request from North Carolina Department of Public Safety for North Carolina National Guard Units.

8. Activation of RDU or CLT airports as Regional or National air evacuation hubs.

9. Any loss or compromise of Personally Identifiable Information (PII) for a member of the North Carolina National Guard.

10. Combat Death of any National Guardsman.

11. Any deployment of North Carolina National Guard units outside of North Carolina in support of Emergency Management Assistance Compact.

12. Any visit to a North Carolina National Guard facility by the Governor, Lieutenant Governor, or elected members of North Carolina General Assembly or North Carolina Congressional Delegation.

13. Any serious incident/event which requires mandatory reporting to any command control element at NGB, AFNORTH, NORTHCOM, ARNORTH, or other HICON.

Green 8 – SERIOUS INCIDENT REPORT

PRECEDENCE:

SECURITY CLASSIFICATION:

1. TYPE OF INCIDENT:
2. DATE AND TIME:
3. LOCATION:
4. PERSONNEL INVOLVED:
   A. SUBJECT:
      (1) RANK OR GRADE:
(2) SSN (last 4):
(3) RACE:
(4) SEX:
(5) AGE:
(6) POSITION:
(7) SECURITY CLEARANCE:
(8) UNIT AND STATUS OF ASSIGNMENT:
(9) DUTY STATUS:
(10) UIC:
   B. VICTIMS:
5. SUMMARY OF INCIDENT:
6. REMARKS:
7. PUBLICITY:
8. COMMANDER REPORTING:
9. POINT OF CONTACT:
10. DOWNGRADING INSTRUCTIONS:

Information regarding injuries, illness, or wounded in action are considered information for Official Use Only. No information in this regard should be discussed with individuals outside of this agency. All soldier health information is to be discussed in need-to-know bases and should not be discussed with individuals not on original message distribution list. Release of information to outside individuals regarding injuries, illness, or wounded in action are violations of multiple DOD Directives and Regulations. Extent of US service member wounds is protected information and can not be released without approval.

The release of information regarding service members Killed in Action is releasable under the guidelines of the Department of Defense. Once released, the service member's name, unit of assignment, home of record, and cause of death can be released.

APPROVED BY:

ACCIDENT REPORTING PROCEEDURES

(1) Green 8 completed by unit will be submitted to JOC through chain of command.
(2) SF91 completed by driver, signed by supervisor
(3) SF94 – witness statements from all parties involved.
(4) Pictures of accident scene if pertinent and pictures of accident vehicle(s) if pertinent.
(5) Police report when available

- Ensure Items 1-5 above are sent electronically to Gregory.m.greene8.mil@mail.mil and John.d.mullinax.mil@mail.mil without delay.
- Direct civilian person(s) involved to contact the State Safety Office at 919-664-6420/6253 for assistance with their claim

NCARNG MOTORCYCLE SAFETY

Which Course should I take?

North Carolina National Guard Motorcycle Safety Courses Offered:

Basic Rider Course 2 (BRC2) – for experienced riders that would like to sharpen their riding and road awareness skills

Advanced Rider Course (ARC) – for riders on any style of motorcycle that wish to continue to enhance their riding and awareness skill

Military SportBike Rider Course **(MSRC)** - Nearly identical to the ARC, this course adds specific language for sport bikes, includes military references, and has a video introduction and summary by Nick Lenatsch who is the author of Sport Riding Techniques.

To sign up or for more information call 919-664-6000 x 46253 or visit https://states.gkoportal.ng.mil/states/NC/jstaff/j3/aso/Pages/Motorcycle-Safety-Training.aspx

WBGT categories

Category	WBGT, °F	WBGT, °C	Flag color
1	<= 79.9	<= 26.6	White
2	80-84.9	26.7-29.3	Green
3	85-87.9	29.4-31.0	Yellow
4	88-89.9	31.1-32.1	Red
5	=> 90	=> 32.2	Black

Continuous Work/Water Consumption Guide

Heat Category	WBGT Index, °F	Easy Work		Moderate Work		Hard Work	
		Work/Rest	Water Intake (Qt/H)	Work/Rest	Water Intake (Qt/H)	Work/Rest	Water Intake (Qt/H)
1	78° - 81.9°	NL	½	NL	¾	40/20 min (70 min)	¾ (1)
2 (GREEN)	82° - 84.9°	NL	½	50/10 min (150 min)	¾ (1)	30/30min (65 min)	1 (1 ¼)
3 (YELLOW)	85° - 87.9°	NL	¾	40/20 min (100 min)	¾ (1)	30/30 min (55 min)	1 (1 ¼)
4 (RED)	88° - 89.9°	NL	¾	30/30 min (80 min)	¾ (1 ¼)	20/40 min (50 min)	1 (1 ¼)
5 (BLACK)	>90°	50/10 min (180 min)	1	20/40 min (70 min)	1 (1 ¼)	10/50 min (45 min)	1 (1 ½)

Easy Work = Walking on hard surface 2.5 mph <30 lb. load, weapon, marksmanship training.
Moderate Work = Patrolling, walking in sand 2.5 mph no load, calisthenics.
Hard Work = Walking in sand 2.5 mph with load, field assaults.

The work/rest times and fluid replacement volumes will sustain performance and hydration for at least 4 hours of work in the specified heat category. Fluid needs can vary based on individual differences (± ¼ qt/h) and exposure to full sun or full shade (± ¼ qt/h)

For Continuous Work, when rest breaks are not possible, refer to the values in parentheses. Leaders should ensure several hours of rest and rehydration time after continuous work.

Rest = minimal physical activity (sitting or standing) in shade if possible.

CAUSTION: hourly fluid intake should not exceed 1 ½ qts. Daily fluid intake should not exceed 12 qts.

If wearing body armor, add 5°F to WBGT index in humid climates.

Add 10°F (Easy Work) or 20°F (Moderate or Hard Work) to WBGT index when wearing NBC (MOPP 4)

NL = no limit to work time per hour.

NOTE: All fluids provide water, whether milk, fruit juice, etc.

Example Heat Illness Risk Management Matrix

Risk Factors	Risk Level			
	0 points/circle Low Risk	**1 point/circle Medium Risk**	**2 points/circle High Risk**	**3 points/circle Extreme Risk**
Risk Management Worksheet	All controls implemented			Not All controls implemented
WBGT Add 5 F backpack or body armor	<Cat 1	Cat 1	Cat 2-3	Cat 4-5
Back-to-back Cat 5 days	0	1	2-3	>4
Heat Illnesses in past 2 days	0	Heat Cramps	Heat Exhaustion	Heat Stroke/ Death
Workload in past 2 days (see TR 350-29 workload classification chart)	Easy	Easy or Moderate	Moderate or Hard	Hard
Projected workload	Easy	Easy or Moderate	Moderate or Hard	Hard
Heat acclimatization days	>13	7-13	3-6	<3
Leader/NCO presence	Full Time	Substantial	Minimal	None
Cadre duty experience	18 months	7-18 months	1-6 months	<1 month
Communication System (tested at training site)	Radio or Phone Line	Landline Phone only	Radio only	None
Previous 24 hours sleep	>7 hours	5-7 hours	2-4 hours	<2 hours
Food/salty snacks every 4 hours	<4 hours	4-6 hours	6-7 hours	<7 hours
Onsite 91W/CLS and iced sheets (min. 8 single bed sheets/company in cooler)	Both iced sheets & Medic, EMT, or CLS	Only Iced Sheets	Medic, EMT, or CLS	None
Add Circled Blocks with points/circle				

Total Score: 0-7 = Low Risk; 7-15 = Medium Risk; 16-24 = High Risk; 25-39 = Extreme Risk

>**11** Total Score should have onsite Medic, EMT, or CLS and organic evacuation transportation.

Heat exhaustion versus Heat Stroke Management

HEAT EXHAUSTION

- Rest Soldier in shade
- Loosen uniform/ remove head gear
- Have Soldier drink 2 quarts of water over 1 hour
- Evacuate if no improvement in 30 min, or if Soldier's condition worsens

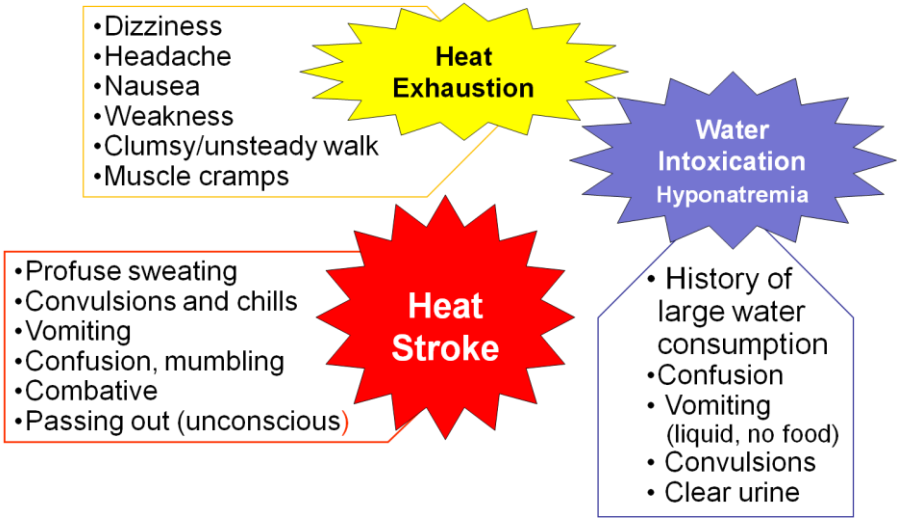
HEAT STROKE

- If Soldier's brain isn't working correctly then COOL and CALL!!

➢ Strip
➢ Rapid cool (ice sheets)
➢ Call for evacuation
➢ Continue cooling during transport

- Maintain same person to observe for mental change

Recognizing Heat-Related Illnesses



WIND CHILL CHART								
	Actual Thermometer Readings (F)							
Wind Speed (in MPH)	50	40	30	20	10	0	-10	-20
	Equivalent Chill Temperature (F)							
Calm	50	40	30	20	10	0	-10	-20
5	48	37	27	16	6	-5	-15	-26
10	40	28	16	3	-9	-21	-33	-46
15	36	22	9	-5	-18	-32	-45	-58
20	32	18	4	-10	-25	-39	-53	-67
25	30	15	0	-15	-29	-44	-59	-74
30	28	13	-2	-18	-33	-48	-63	-79
35	27	11	-4	-20	-35	-51	-67	-82
40	26	10	-6	-22	-37	-53	-69	-85
	Little Danger for Properly Clothed Soldiers			**Increased Danger: Exposed Skin May Freeze (1 min)**			**Great Danger: Exposed Skin May Freeze (30 Sec)**	

COLD WEATHER INJURIES

FROSTBITE

Cause	Symptoms	First Aid
Freezing of tissue, normally due to exposure below 32 F.	Numbness in affected area. Tingling, blistered, swollen, or tender areas. Pale, yellowish, waxy-looking skin.	Warm affected area with direct body heat. Consult with medical personnel ASAP. DO NOT thaw frozen area if treatment will be delayed. DO NOT massage or rub affected area. DO NOT web area or rub with snow or ice.

CHILBLAIN

Cause	Symptoms	First Aid
Repeated exposure of bare skin for prolonged periods to temperatures from 20 to 50 F (for those not acclimated to cold weather).	Swollen, red skin (or darkening of skin in dark-skinned people). Tender, hot skin, usually accompanied by itching.	Warm affected area with direct body heat. DO NOT massage or rub. DO NOT wet the area or rub with snow or ice. DO NOT expose affected area to open fire, stove, or any other intense heat source.

IMMERSION FOOT (trench foot)

Cause	Symptoms	First Aid
Prolonged exposure of feet to wet conditions at temperatures between 32 and 50 F. Inactivity and damp socks and boots (or tightly laced boots that impair circulation) speed onset and severity.	Cold, numb feet may progress to hot with shooting pains. Swelling, redness, and bleeding.	Rewarm feet by exposing them to warm air. Evacuate victim to a medical facility. DO NOT massage, rub, moisten, or expose affected area to extreme heat.

DEHYDRATION

Cause	Symptoms	First Aid
Depletion of body fluids.	Dizziness. Weakness.	Replace lost water. Water should be sipped, not gulped. Get medical treatment.

HYPOTHERMIA

Cause	Symptoms	First Aid
Prolonged cold exposure and body heat loss. May occur well above freezing, especially when a person is immersed in water.	Lack of shivering. Drowsiness, mental slowness, lack of coordination. Can progress to unconsciousness, irregular heartbeat, and death.	Strip off clothing and wrap victim in blankets or sleeping bag. Get victim to a heated location and medical treatment as soon as possible.

Swift Water Rescue Safety

- Conduct deliberate risk assessment prior to any operation
- Conduct PCC's/PCI's
- Conduct through PMCS on all equipment before and after operation
- The use of personal safety equipment should be mandatory for all Soldiers and other rescuers vulnerable to moving water
- Upstream safety spotters should be used to warn of debris approaching the rescue scene
- Downstream safety should be ensured by assigning personnel to stage downstream of a rescue site in case a rescuer or victim is swept away. Downstream safety personnel should be properly trained and equipped for immediate rescue attempts.
- Low-risk methods should always be employed first. Consider increasingly high-risk options when necessary. Be prepared to back off if conditions are too dangerous to conduct rescue operations with reasonable safety.

- Only highly trained and properly equipped personnel should operate around severe hazards such as low head dams, concrete flood channels that go underground, and hazardous debris such as power lines.
- Communication is to the upmost importance of swift water operations, mutual aid communications should be considered when multiple agencies are assigned to a swift water incident.
- The safety of the individual rescuer, the rescue team, bystanders, and the victim should be considered in that order.
- Ensure accountability of personnel and equipment is conducted before, during and after operation.

HMMWV Fording Procedures

- Conduct Deliberate Risk Assessment Prior to all operations
- Conduct PCC's / PCI's
- Conduct Before, During, and After PMCS

CAUTION
Never attempt shallow water fording unless water depth is known to be 30 in. (76cm) or less, and bottom is known to be hard. Do not exceed 5 mph (8 kph) during fording operation. Damage to vehicle will result.

Before Operation

(1)Make sure oil dipstick, transmission dipstick, oil filler cap, and fuel tank cap are secure.
(2)Secure all loose objects on vehicle; Make sure battery caps are all present and tight.

During Operation

Place transfer case shift lever in "H" (high range).
CAUTION Entering water too fast will cause water to splash up over hood and into air intake. The engine may stop abruptly and will not crank. Do not continue starting efforts; damage to engine will result.
(1) Enter water slowly and maintain even vehicle speed while fording.
(2) Exit water in area with gentle slope.

NOTE

- Hydrostatic lock is caused by the entry of substantial amounts of water into the engine through the air intake system and subsequent contamination of the fuel system. Hydrostatic lock most frequently occurs during or just after fording. Water is forced into the air intake system, is drawn into the engine, and effectively "locks-up" the engine.
- Notify unit maintenance if you suspect hydrostatic lock and they will further test the engine.

After Operation

WARNING
Do not rely on service brakes after fording until the brakes dry out. Keep applying brakes until uneven braking cases. Failure to do this may cause damage to vehicle or injury or death to personnel.

NOTE
If accumulated water drains slowly through floor drain holes, refer to unit maintenance for drilling and improving drain holes
(1) If fording operation was through salt water, wash and wipe off all salt deposits as soon as possible.

NOTE
To prevent parking brake linkage from binding, lithium grease should be used after operating in mud. Clean mud, grit, and debris from linkage. Apply lithium grease and move linkage back and forth to work into joints.
(2) Vehicles completing shallow water fording operation must be lubricated and serviced by unit maintenance as soon as possible.

CHAIN-SAW SAFETY

- Prior to any operation conduct a Deliberate Risk Assessment
- Conduct PPC's / PCI's
- Conduct PMCS on equipment
- Soldiers shall be trained in the safe and proper use of the chainsaw.
- Operator shall wear personal protective equipment including appropriate helmet gloves, steel toe shoes and leg chaps.
- Do not wear loose-fitting clothing.
- Check controls, chain tension, and all bolts and handles to ensure that they are functioning properly and that they are adjusted according to the manufacturer's instructions.
- Make sure that the chain is always sharp and the lubrication reservoir is full.
- Start the saw on the ground or on another firm support. Drop starting is never allowed.
- Start the saw at least 10 feet from the fueling area, with the chain's brake engaged.
- Operator shall hold the saw with both hands while cutting.
- Operator shall not use saw to cut above shoulder height.
- Operator and workers shall work from the up-hill side whenever possible.
- Block log or object to be cut whenever there is a possibility of rolling.
- Be cautious of saw kick-back. To avoid kick-back, do not saw with the tip. If equipped, keep tip guard in place.
- Soldiers shall be trained in proper lifting techniques.
- Use mechanical lifting device if load is too heavy or cut wood into smaller sizes.

Weather the Storm

Prepare for Natures Most Violent Storms....

Lightning Safety Rules

- Get to a safe place. ***When Thunder Roars, Go Indoors!***
- Keep away from electrical equipment and water pipes.

Tornado Safety Rules

- The safest place to be is an underground shelter, basement, or safe room. If no underground shelter or safe room is available, a small, windowless interior room or hallway on the lowest level of a sturdy building is the safest alternative.
- Mobile homes are not safe during tornadoes. Abandon mobile homes and go to the nearest sturdy building or shelter immediately.
- If you are caught outdoors, seek shelter. If you cannot quickly walk to a shelter immediately get into a vehicle, buckle your seat belt and try to drive to the closest sturdy shelter.
- If flying debris occurs while you are driving, pull over and park. Now you have the following options as a last resort:
    - *Stay in your vehicle with the seat belt on. Put your head down below the windows, covering with your hands and a blanket if possible.*
    - *If you can safely get noticeably lower than the level of the roadway, exit your car, and lie in that area, covering your head with your hands.*

Flash Flood Safety Rules

- Avoid driving, walking, or swimming in flood waters.
- Stay away from high water, storm drains, ditches, ravines, or culverts.
- If you come upon a flooded roadway never drive through it. ***TURN AROUND DON'T DROWN!!!.***

Follow these Driving Tips when the temperatures drop and the roads are icy:

- Clear all snow from your car's windows, lights, license plates, and roof. Snow blowing from the roof of your car is a visibility hazard to the driver behind you.
- Back off. Have patience and give people more lead-time, especially if there's snow on the road. You'll thank yourself when the car ahead suddenly spins out.
- Give yourself a brake. If you go into a skid, take your foot off the gas, steer into the skid, and regain control. If you have to stop right away, pump your brakes - don't slam on them. If your car has anti-lock braking systems (ABS), apply steady pressure to the brake pedal.
- Prepare your car. Keep your gas tank close to full to avoid gas line freeze-up. Clean the inside of your windows thoroughly. Make sure your windshield washer system works and is full of an anti-icing fluid. Keep your tires properly inflated. Use your headlights so that others will see you.
- Watch carefully for "black ice." If the road looks slick, it probably is. This is especially true with one of winter's worst hazards: "black ice." Also called "glare ice," this is nearly transparent ice that often looks like a harmless puddle or is overlooked entirely. Test the traction with a smooth brake application or slight turn of the wheel.
- Carry a winter survival kit, especially on long trips or in isolated areas. Include matches and a candle, a parka and sleeping bag or emergency blanket, food,
bottled water, first aid kit, jumper cables with safety goggles, gasoline antifreeze, fuel conditioner for diesel fuel, wrenches for minor repairs, a spare fan belt and radiator hose, spare spark plugs and spark plug wire.